AMENDMENTS TO THE CLAIMS

1. (Previously Presented) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from non-recorded portions with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and controls a reading position of the reading means;

drive means which drives the energy generation means;

switching means which selectively switches information based on user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal amplitude obtained from the reading means; and

recording condition control means which controls a recording condition ~~of~~ in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in a first reproduction in comparison with a time when the test information is recorded and changed in a second reproduction in comparison with a time when the test information is recorded, and

wherein the recording condition is controlled in accordance with a signal amplitude in the first reproduction and a signal amplitude in the second reproduction.

2-7. (Canceled)

8. (Previously Presented) The apparatus of claim 1, further comprising

means for vibrating an optical spot in a direction perpendicular to a track scanning direction and in parallel with a recording medium.

9-11. (Canceled)

12. (Previously Presented) An information recording method for recording information on a recording medium by forming marks different in a physical property from non-recorded portions with energy injected into the recording medium, comprising the steps of:

controlling a position of energy generation means injecting the energy on a predetermined area on the recording medium and a position of reading means which reads marks recorded on the recording medium;

irradiating a recording energy on the recording medium to record test information;

reproducing, as a first reproduction, the test information without a change of a target track following condition of the position control from a time when the test information is recorded;

reproducing, as a second reproduction, the test information with a change of the target track following condition of the position control from a time when the test information is recorded; and

controlling a recording condition in accordance with a signal amplitude in the first reproduction step and a signal amplitude in the second reproduction step.

13. (Previously Presented) The method of claim 12, in the first and second reproduction steps, either a tracking-offset amount, or a tracking polarity, or a stop or a start of a tracking operation is changed.

14. (Previously Presented) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and a reading position of the reading means;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to

be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in a first reproduction in comparison with a time when the test information is recorded and changed in a second reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in the first reproduction and a signal amplitude in the second reproduction, and

wherein the changed content of the control operation for the position control means is a tracking offset amount of the track following operation carried out by the position control means.

15. (Previously Presented) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and a reading position of the reading means;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in a first reproduction in comparison with a time when the test information is recorded and changed in a second reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in the first reproduction and a signal amplitude in the second reproduction, and

wherein the changed content of the control operation for the position control means is a tracking polarity carried out by the position control means.

16. (Previously Presented) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and a reading position of the reading means;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in a first reproduction in comparison with a time when the test information is recorded and changed in a second reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in the

first reproduction and a signal amplitude in the second reproduction, and

wherein the changed content of the control operation for the position control means is a stop or start of a tracking operation carried out by the position control means.

17. (Previously Presented) The apparatus of claim 1, wherein the changed content of the control operation for the position control means is a tracking-offset amount, indicated by the position control means in a case where the test information is supplied to the drive means and recorded on the recording medium, and in-phase mark arrangement is recorded on adjacent tracks,

wherein in a case where the test information is supplied to the drive means and recorded on the recording medium, the test information inconsistent with a conversion rule of a conversion means is used,

wherein test information containing a longer run-length than a run-length rule of the conversion means is used as the test information.

18. (Previously Presented) The apparatus of claim 1, wherein the changed content of the control operation for the position control means is a tracking polarity, indicated by the position control means in a case where the test information is supplied to the drive means and recorded on the recording medium, and in-phase mark arrangement is recorded on adjacent tracks,

wherein in a case where the test information is supplied to the drive means and recorded on the recording medium, the test information inconsistent with a conversion rule of a conversion means is used,

wherein test information containing a longer run-length than a run-length rule of the conversion means is used as the test information.

19. (Previously Presented) The apparatus of claim 1, wherein the changed content of the control operation for the position control means is a stop or a start of a tracking operation, indicated by the position control means in a case where the test information is supplied to the drive means and recorded on the recording medium, and in-phase mark arrangement is recorded

on adjacent tracks,

wherein in a case where the test information is supplied to the drive means and recorded on the recording medium, the test information inconsistent with a conversion rule of a conversion means is used,

wherein test information containing a longer run-length than a run-length rule of the conversion means is used as the test information.

20. (Previously Presented) The apparatus of claim 1, further comprising vibration means which vibrates the reading means in a direction perpendicular to a main scanning direction on the recording medium and in parallel with the recording medium;

wherein the changed content of the control operation for the position control means is a stop or a start of vibrating operation of the vibrating means in a case where the test information is supplied to the drive means and recorded on the recording medium, and in-phase mark arrangement is recorded on adjacent tracks,

wherein in a case where the test information is supplied to the drive means and recorded on the recording medium, the test information inconsistent with a conversion rule of a conversion means is used,

wherein test information containing a longer run-length than a run-length rule of the conversion means is used as the test information.

21-32. (Canceled)

33. (New) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from non-recorded portions with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and controls a reading

position of the reading means;

drive means which drives the energy generation means;

switching means which selectively switches information based on user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal amplitude obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in one reproduction in comparison with a time when the test information is recorded and changed in another reproduction in comparison with a time when the test information is recorded, and

wherein the recording condition is controlled in accordance with a signal amplitude in said one reproduction and a signal amplitude in the other reproduction.

34. (New) An information recording method for recording information on a recording medium by forming marks different in a physical property from non-recorded portions with energy injected into the recording medium, comprising the steps of:

controlling a position of energy generation means injecting the energy on a predetermined area on the recording medium and a position of reading means which reads marks recorded on the recording medium;

irradiating a recording energy on the recording medium to record test information;

reproducing, as one reproduction, the test information without a change of a target track following condition of the position control from a time when the test information is recorded;

reproducing, as another reproduction, the test information with a change of the target track following condition of the position control from a time when the test information is recorded; and

controlling a recording condition in accordance with signal amplitudes in the reproducing steps.

35. (New) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in one reproduction in comparison with a time when the test information is recorded and changed in another reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in the one reproduction and a signal amplitude in the other reproduction, and

wherein the changed content of the control operation for the position control means is a tracking offset amount of the track following operation carried out by the position control means.

36. (New) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and a reading position of the reading means;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in one reproduction in comparison with a time when the test information is recorded and changed in another reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in the one reproduction and the signal amplitude in the other reproduction, and

wherein the changed content of the control operation for the position control means is a tracking polarity carried out by the position control means.

37. (New) An information recording apparatus for recording information on a recording medium by forming marks different in a physical property from a non-recorded portion with energy injected into the recording medium, comprising:

energy generation means which generates recording energy;

reading means which reads marks recorded on the recording medium;

position control means which controls an injecting position of the recording energy output from the energy generation means for the recording medium and a reading position of the reading means;

drive means which drives the energy generation means;

switching means which switches information based on a user's data or test information to

be supplied to the drive means;

evaluation means which evaluates a reproduced signal obtained from the reading means; and

recording condition control means which controls a recording condition in accordance with an evaluation result obtained from the evaluation means,

wherein in a case of reproducing the marks having the test information, a target condition of a track following operation of the position control means is unchanged in one reproduction in comparison with a time when the test information is recorded and changed in another reproduction in comparison with a time when the test information is recorded,

wherein the recording condition is controlled in accordance with a signal amplitude in one reproduction and a signal amplitude in the other reproduction, and

wherein the changed content of the control operation for the position control means is a stop or start of a tracking operation carried out by the position control means.